

Ecological Footprint 2

3.8.1 Explain the concept of an ecological footprint as a model for assessing the demands that human populations make on their environment.

Ecological Footprints increased by:

- ↑ use of Fossil Fuels → more CO₂
- ↑ use of technology → often ↑ Energy use
- ↑ levels of imported resources → more transport → more Energy
- ↑ per capita production of carbon waste
- ↑ per capita consumption of food (esp. red meat)

Ecological Footprints decreased by:

- Biomes with ↑ NPP have lower E. Footprints because ↑ photosynthesis uses up CO₂
- ↓ amounts of Resource use
- Recycling & Reusing Resources
- Improved efficiency of Resource use
- ↓ Reduce amount of pollution produced.
- improved technology to ↑ Carrying Cap.
- transporting waste elsewhere for them to deal with.
- import. other resources from other places.
- Reduce Population
- Use tech. to intensify land use

→ Factors used to calculate FULL Ecological Footprints (You only have to know how to calculate the simple form—See Ecological Footprints 2)

- Currently used land → farmlands, gardens, managed forests, & pasture.
- Currently used Sea → Sea used for human consumption.
- Energy land → Equivalent land that would be required to support Renewable energy instead of non-renewable energy.
- Built Land (Consumed land) → used for development → Roads or Buildings
- Biodiversity Land - land required to support all non-human spp
- Non-productive Land - Deserts (etc) subtracted from total land available.

3.8.3 Describe and explain the differences between the ecological footprints of two human populations, one from a LEDC and one from a MEDC.

LEDCs

Smaller Ecological Footprints

↓
less to spend

↓
less wasteful
more recycling
(as in China)

* As they increase pop. size
E. Footprint ↑.

More ecocentric view
→ Work in Balance
with Enviro

MEDCs

Larger Ecological Footprints

↑
Disposable \$

↓
use more resources
often wasteful

↓
Produce waste &
Pollution as By-products

↑
More Meat in Diet

↓
more grain
more pesticides
more methane

Technocentric View of the World